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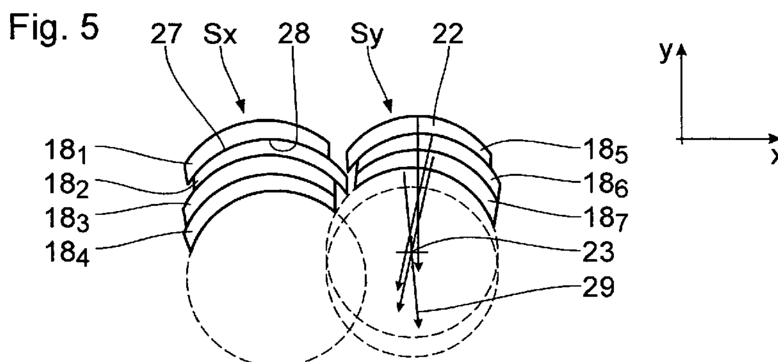
(54) **Title**: FIELD FACET MIRROR FOR USE IN AN ILLUMINATION OPTICS OF A PROJECTION EXPOSURE APPARATUS FOR EUV MICROLITHOGRAPHY



(57) **Abstract**: A field facet mirror serves for use in an illumination optics of a projection exposure apparatus for EUV microlithography for transmitting a structure of an object arranged in an object field into an image field. The field facet mirror (6) has a plurality of field facets (18_X) with reflection surfaces (22). The arrangement of the field facets (18_X) next to one another spans a base plane (xy). Projections of the reflection surfaces (22) of at least two of the field facets (18_X) onto the base plane (x, y) differ with respect to at least one of the following parameters: size, shape, orientation. A field facet mirror results, in which the ensuring of a uniform object field illumination with a simultaneously high EUV throughput meets high requirements.

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